Amdt. dated: May 9, 2005

Reply to Office action of February 2, 2005

**Amendments to the Claims:** 

Claim 1 (original): A method of recycling aluminum alloy wheels, the method

comprising:

a) providing a feed of aluminum alloy wheels of a particular alloy;

b) fragmenting the aluminum alloy wheels into a plurality of pieces;

c) subjecting the pieces to magnetic separation to produce pieces having a

reduced iron content; and,

d) subjecting the pieces having a reduced iron content to shot blasting to

produce shot blasted pieces.

Claim 2 (original): The method as claimed in claim 1 wherein the step of fragmenting

the aluminum alloy wheel into the plurality of pieces comprises shredding the aluminum

alloy wheel into the plurality of pieces.

Claim 3 (original): The method as claimed in claim 2 wherein the shredding produces at

least one of dirt and fines and the method further comprises separating the dirt and

fines from the plurality of pieces.

Claim 4 (original): The method as claimed in claim 3 wherein the dirt and fines from the

plurality of pieces are removed by screening.

Claim 5 (original): The method as claimed in claim 1 further comprising collecting the

shot blasted pieces for use in manufacturing a component made from aluminum alloy.

Claim 6 (original): The method as claimed in claim 1 further comprising collecting the

shot blasted pieces for use in manufacturing an aluminum alloy wheel.

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Claim 7 (original): The method as claimed in claim 1 wherein the wheels are made from

alloy A356.2 and the method further comprises collecting the shot blasted pieces for

use in manufacturing aluminum alloy wheels made from alloy A356.2.

Claim 8 (original): The method as claimed in claim 1 further comprising subjecting the

shot blasted pieces to eddy current separation to produce further treated aluminum alloy

pieces.

Claim 9 (original): The method as claimed in claim 8 further comprising collecting the

further treated aluminum alloy pieces for use in manufacturing a component made from

aluminum alloy.

Claim 10 (original): The method as claimed in claim 8 further comprising collecting the

further treated aluminum alloy pieces for use in manufacturing an aluminum alloy wheel.

Claim 11(original): The method as claimed in claim 8 wherein the wheels are made

from alloy A356.2 and the method further comprises collecting the further treated

aluminum alloy pieces for use in manufacturing aluminum alloy wheels made from alloy

A356.2.

Claim 12 (original): The method as claimed in claim 1 further comprising removing

chrome-plated aluminum alloy wheels from the feed of aluminum alloy wheels.

Claim 13 (original): The method as claimed in claim 1 further comprising preparing the

feed of aluminum alloy wheels of the particular alloy by removing from a feed of

aluminum alloy wheels chrome plated wheels and wheels that are not made of the

particular alloy.

Claim 14 (original): The method as claimed in claim 13 further comprising separately

subjecting the chrome-plated aluminum alloy wheels to steps (b) – (d).

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Claim 15 (original): The method as claimed in claim 1 wherein the particular alloy is an alloy used for aluminum alloy car wheels and the method further comprises preparing the feed of aluminum alloy wheels of the particular alloy by removing from a feed of aluminum alloy wheels chrome plated wheels, motorcycle wheels and truck wheels.

Claim 16 (canceled)

Claim 17 (canceled)

Claim 18 (canceled)

Claim 19 (canceled)

Claim 20 (canceled)

Claim 21 (canceled)

Claim 22 (canceled)

Claim 23 (original): A method of recycling aluminum alloy wheels, the method comprising:

- a) providing a feed of aluminum alloy wheels of a particular alloy;
- b) fragmenting the aluminum alloy wheels into a plurality of pieces; and,
- c) subjecting the pieces to shot blasting to produce shot blasted pieces.

Claim 24 (original): The method as claimed in claim 23 wherein the step of fragmenting the aluminum alloy wheel into the plurality of pieces comprises shredding the aluminum alloy wheel into the plurality of pieces.

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Claim 25 (original): The method as claimed in claim 24 wherein the shredding produces at least one of dirt and fines and the method further comprises separating the dirt and fines from the plurality of pieces.

Claim 26 (original): The method as claimed in claim 25 wherein the dirt and fines from the plurality of pieces are removed by screening.

Claim 27 (original): The method as claimed in claim 23 further comprising collecting the shot blasted pieces for use in manufacturing a component made from aluminum alloy. Claim 28 (original): The method as claimed in claim 23 further comprising collecting the shot blasted pieces for use in manufacturing an aluminum alloy wheel.

Claim 29 (original): The method as claimed in claim 23 wherein the wheels are made from alloy A356.2 and the method further comprises collecting the shot blasted pieces for use in manufacturing aluminum alloy wheels made from alloy A356.2.

Claim 30 (original): The method as claimed in claim 23 further comprising subjecting the shot blasted pieces to eddy current separation to produce further treated aluminum alloy pieces.

Claim 31 (original): The method as claimed in claim 30 further comprising collecting the further treated aluminum alloy pieces for use in manufacturing a component made from aluminum alloy.

Claim 32 (original): The method as claimed in claim 30 further comprising collecting the further treated aluminum alloy pieces for use in manufacturing an aluminum alloy wheel.

Claim 33 (original): The method as claimed in claim 30 wherein the wheels are made from alloy A356.2 and the method further comprises collecting the further treated aluminum alloy pieces for use in manufacturing aluminum alloy wheels made from alloy A356.2.

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Claim 34 (original): The method as claimed in claim 23 further comprising removing

from the feed of aluminum alloy wheels chrome-plated aluminum alloy wheels.

Claim 35 (original): The method as claimed in claim 23 further comprising preparing the

feed of aluminum alloy wheels of the particular alloy by removing from a feed of

aluminum alloy wheels chrome plated wheels and wheels that are not made of the

particular alloy.

Claim 36 (original): The method as claimed in claim 35 further comprising separately

subjecting the chrome-plated aluminum alloy wheels to steps (b) and (c).

Claim 37 (original): The method as claimed in claim 23 wherein the particular alloy is an

alloy used for aluminum alloy car wheels and the method further comprises preparing

the feed of aluminum alloy wheels of the particular alloy by removing from a feed of

aluminum alloy wheels chrome plated wheels, motorcycle wheels and truck wheels.

Claim 38 (new): The method as defined in claim 1 wherein each piece in the plurality of

pieces is at least two inches in length.

Claim 39 (new): The method as defined in claim 23 wherein each piece in the plurality

of pieces is at least two inches in length.

Claim 40 (new): The method as defined in claim 1 wherein step (d) comprises blasting

the pieces using shot having a diameter of at least a half an inch.

Claim 41 (new): The method as defined in claim 23 wherein step (c) comprises blasting

the pieces using shot having a diameter of at least a half an inch.

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